

## **REMARKS**

Claims 65-72 and 74-85 are pending in the Application. Claims 1-64 have been previously canceled, and claims 65-72 and 74-85 have been rejected. In response to Examiner's rejections, independent claims 65, 77 and 83, as well as dependent claim 78, have been amended to more accurately reflect the patentably distinct elements of the present Application. Further dependent claim 66 has been canceled. Support for the amendments is found in FIGs. 1-10, as well as paragraphs 41-69 of the Specification. It is believed that the amendments as presented herein, as well as the remarks below, address each of the Examiner's rejections of the claims.

Applicant respectfully requests, therefore, the Examiner consider the amendments and arguments set forth herein, and that a Notice of Allowance be issued for the claims 65-72, and 74-85

### **Claim Rejection – 35 U.S. C. § 103(a)**

Claims 65-72 and 74-85 are rejected under 35 U.S. C. § 103(a) as being unpatentable over Kreichauf et al (US Patent No. 6,701,772) ("Kreichauf") in view of Gross (US Patent No. 5,864,481) ("Gross"). In response to these rejections, Applicant respectfully submits the following arguments and evidence in rebuttal.

The USPTO issued, in October 2007, "Examination Guidelines for Determining Obviousness Under 35 U.S.C. § 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*" (see Federal Register, Vol. 72, No. 195, pp. 57526-57535). It is instructive to review the rejected claims in light of this guidance. With regard to a 35 U.S.C. §103 rejection, factual inquiries as articulated in *Graham v. John Deere Co.* are still the basis for determining obviousness. After conducting a factual analysis, an Examiner must specify one or more rationale for a rejection. The rationale discussed and explained in the above referenced Guidelines are summarized in Table 1 below. In the Table, Applicant has also indicated whether or not a specific element, for a specific

rationale, is present in this case. Importantly, for any given rationale, all of the elements for that rationale must be present in order for there to be a determination of obviousness. If even one element is missing, the Examiner may not use the rationale to reject a claim. Further, “[r]ejections on obviousness cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Federal Register/Vol. 72, No. 195, pg 57529*. As summarized in Table 1, and discussed in detail below, the Examiner in the present case has failed to meet these stringent requirements.

**TABLE 1**

Rationale	Elements	
A. Combine Prior Art Elements According to Known Methods Yielding Predictable Results.	- Prior art includes each element claimed	N
	- One of ordinary skill could have combined known elements, each element performing as if functioning separately	N
	- Recognized results as predictable	N
B. Simple Substitution to Obtain Predictable Results	- Prior art contained device differing from claimed device by substitution of components	N
	- Substituted component and functions known in the art	N
	- One of ordinary skill could have made substitution with predictable results	N
C. Known Technique to Improve Similar Devices in the Same Way	- Prior art contained a “base” device upon which claimed device can be seen as an improvement	N
	- Prior art contained a comparable device, not same as base, improved in same way as claimed invention	N
	- One of ordinary skill could have applied improvement to base device yielding predictable results	N
D. Applying a Known Technique to a Known Device Ready for Improvement to Yield Predictable Results	- Prior art contained a base device upon which claimed invention can be seen as an improvement	Y

	- Prior art contained a known technique that is applicable to the base device	N
	- One of ordinary skill would have recognized that applying known technique would have yielded predictable results	N
E. Obvious to Try, i.e. Choosing From Finite Number of Identified, Predictable Solutions With Reasonable Expectation of Success	- At the time of the invention, there had been a recognized problem or need, which may include a design need or market pressure, to solve a problem	Y
	- There had been a finite number of identified, predictable potential solutions	N
	- One of ordinary skill could have pursued the solutions with a reasonable expectation of success	N
F. Known Work in One Field May Prompt Variations of It for Use in Same or Different Field, if Variations Would Have Been Predictable	- Scope and content of prior art, whether in same field as applicant's invention or a different field, contained an analogous device	N
	- There were design incentives or market forces prompting adaptation to the known device	Y
	- Difference between the claimed invention and prior art were encompassed in known variations or in a principal known in the art	N
	- One of ordinary skill could have implemented the claimed variation of the prior art, and variation would have been predictable	N
G. Some Teaching, Suggestion, or Motivation to Combine the Prior Art to Arrive at Claimed Invention	- Some teaching, suggestion or motivation, either in the references or in knowledge generally available, to combine references	N
	- A reasonable expectation of success	N

Prior to evaluating the Examiner's rejections in light of the Guidelines, it is important to briefly highlight the factual, technical distinctions between the

claimed invention and the cited prior art. Specifically, with regard to the Kreichauf system, Kreichauf teaches and discloses *solely* a “chemical or biological attack detection ... system”. Contrary to the Examiner’s assertion, Kreichauf does not detect and process any electromagnetic threat data or data generated by an RF probe sensor module. While the Examiner asserts that Kreichauf includes a plurality of sensors such as those claimed by the Applicant, there is simply no basis for this statement. The cite provided by the Examiner, specifically Kreichauf column 4, lines 29-42, clearly highlights that Kreichauf only discusses “chemical noses” and similar devices for detecting nuclear, biological and chemical (“NBC”) agents. The infrared, near infrared and ultraviolet sensors relied on by the Examiner *are all* various techniques for analyzing a chemical or biological agent, and have no correlation to the electromagnetic target detection sensors and probes disclosed by Applicant.

Further, Kreichauf fails to teach or claim any of the sophisticated digital data processing components and software disclosed by Applicant, such as the image stabilization sensor, video switching module, etc., or the corresponding processing techniques, to include but not limited to noise reduction, contrast enhancement, filtering, and gain control. This distinction is significant. The ability to capture and process multi-spectral, RF probe (radar), *and* NBC data in a single, compact, integrated controller, of the nature disclosed by Applicant, is not found in the simplistic controller of Kreichauf. As such, the controller claimed by Applicant is not disclosed, and would not be feasible in the Kreichauf design.

The Examiner speculates that Kreichauf must include a GPS receiver, based on the mobility aspects of the Kreichauf system. Importantly, Kreichauf does not disclose, teach or claim a GPS receiver or component. By contrast, Kreichauf explains that system mobility is guided by pre-programmed, specified routes of movement and/or data received from multiple ground-based detectors by virtue of data triangulation, etc. (see for example Kreichauf, column 5, lines 11-27).

The introduction of Gross, in combination with Kreichauf, does little or nothing to salvage the Examiner’s argument of obviousness. While Gross does

introduce certain elements found in Applicant's disclosure, ultimately an application of the Guidelines still leads to the conclusion that the Application presents a patentably distinct invention. For example, the Examiner is correct that Gross includes such items as thermal (infrared) sensors, a GPS, and some degree of integration of data from multiple sources. However neither Gross nor the combination of Gross and Kreichauf includes "each element claimed" as required by the Guidelines. Specifically, there is no teaching, disclosure, or claim in the prior art (Gross or Kreichauf) of a RF probe (radar) of the type disclosed by Applicant. This active detection system is in stark contrast to the passive detection devices of the cited art. Similarly, the *integration* of passive electromagnetic (e.g. visual and infrared detection sensor modules), passive NBC, and active RF probe sensor modules into a single, stand alone unit is a complex technical challenge unique to Applicant's invention. The invention disclosed and claimed by Gross is integrated to a degree, but it is far from compact or hand-held, and it requires a "man-in-the-loop" to operate effectively. Kreichauf is more compact, and may operate independent of human interface, however, it is an oversimplification to suggest, as the Examiner does, that the platform of Kreichauf could accommodate and integrate the elements of the Gross design. Also, there is no teaching or suggestion in the prior art to combine the inventions of Gross and Kreichauf in this manner.

More importantly, the controller of Applicant's disclosure is capable of: (a) distinguishing between, (b) processing, and (c) transmitting the varying forms of threat data provided by Applicant's sensor suite. The controllers of either Kreichauf or Gross are incapable of such sophisticated data manipulation. This is not a trivial distinction, given the constrained size and power limitations of the systems in question. In summary, the combination of elements suggested by the Examiner, taken from the disclosures of Kreichauf and Gross, is not technically feasible.

Applying these factual distinctions to the rationale outlined in Table 1 above, it is quite evident that:

- (1) the prior art does not include each element claimed by Applicant (rationale A);
- (2) the prior art does not provide for a simple substitution of components leading to the Applicant's invention (rationale B);
- (3) the prior art does not include either a base device upon which the claimed invention is simply an improvement (rationale C & D), nor does the cited art include a device comparable to Applicant's improved in the same manner as that disclosed by Applicant (rationale C);
- (4) the prior art does not contain or disclose a known technique (either the integration of multiple sensors nor the complex processing of resultant data) applicable to a base (rationale D);
- (5) there did not exist, at the time of Applicant's disclosure, a finite number of *identifiable* and *predictable* solutions to solve the integration problems addressed by Applicant (rationale E);
- (6) the prior art does not encompass an analogous device, a known variation, or a known principal which stands as the sole distinction between Applicant's invention and the prior art (rationale F); and
- (7) there is absolutely no suggestion, teaching or motivation in the prior art, or in the knowledge generally known in the field, to combine, in the manner suggested by Applicant, the varying elements of the prior art (rationale G).

In addition to the arguments set forth above, it is incorrect to suggest, as the Examiner must in the context of a 103(a) rejection, that a combination of the prior art cited would yield either *predictable results* (rationale A-D, F) or a *reasonable expectation of success* (rationale E and G). Similarly stated, the technical innovations and component integrations required to produce a functioning device such as that claimed by Applicant cannot result from a combination of Kreichauf and Gross, and the results of such a combination would be far from predicable (as that term applies to the need to acquire and process data from a plurality of threat sources). Further, the Examiner uses a simple,

conclusory statement as the rationale to support a claim of obviousness (see Office Action page 7, third complete paragraph beginning with the word "Therefore"). The limited arguments presented by Examiner do not rise to the standards of the Guidelines, which is to say an "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." Without such justification, the claim of obviousness must fail, and the independent claims 65, 77 and 83 should therefore be allowed.

The dependent claims associated with each independent claim (each of which has been shown to be patentably distinct from the cited art), specifically independent claim 65 (dependent claims 67-72 and 73-76), independent claim 77 (dependent claims 78-82) and independent claim 83 (dependent claims 84 -85) benefit from the same arguments set forth above and are therefore patentably distinct as well. Additionally, with regard to dependent claims 78 and 79, as noted above the cited art does not include an array of detector suites such as that disclosed in claim 78, nor does the art provide for the complex data processing disclosed in dependent claim 79. For these reasons, the dependent claims are allowable as well.

## **CONCLUSION**

For the reasons given above, and after careful review of the cited references, Applicant respectfully submits that the references will not result in, teach or suggest Applicant's claimed invention, either individually or in combination. There is no suggestion in either cited reference, or in the general knowledge of those skilled in the art, to combine the references as suggested by Examiner, and such a combination could not be expected to yield predictable or successful results.

Applicant has amended independent claims 65, 77 and 83, and dependent claim 78, to more clearly articulate Applicant's invention. In addition, the amendment is offered to help distinguish Applicant's invention over the cited references as presented by Examiner. In view of the above Amendments and Remarks, Applicant has addressed all issues raised in the Office Action dated


April 29, 2008, and respectfully solicits a Notice of Allowance for claims 65-72 and 74-85.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicant believes that no further fees are due; however, should any fee be deemed necessary in connection with this Amendment and Response, the Commissioner is authorized to charge deposit account 121660, referencing the Attorney docket number SMY005.125655.

Respectfully presented,

By

  
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